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Alferink, I. *Dimensions of convergence in bilingual speech and gesture*. Utrecht: LOT 2015. ISBN: 978-94-6093-173-4.

Placing a coffee cup on the table, or a book on a shelf. Crossing the street, or climbing a tree. These seemingly ordinary and uninteresting events all have in common that they involve movement through space. And indeed, they are common in everyday life, and every language in the world has grammatical means to encode such events. The way in which these movements are encoded, however, differs from language to language in interesting ways. How these different encodings influence each other---become more similar to each other---when people speak more than one language is the topic of Inge Alferink's PhD thesis.

In a series of experiments, Alferink focuses on motion verbs in French and Dutch, and investigates which kinds of *convergence* can be observed when bilingual speakers use those verbs. Convergence is a process in which one or both of the languages used by bilinguals are adapted to become more similar. There are several ways in which two languages can become more similar: one of the two languages can become less specific (reduction), specificity can be added to the language that was the least specific (accumulation) or the frequencies of different encoding options in one or both languages can be altered (redistribution). Finding out which of these variants occur in which situations, Alferink states, will provide important insights into the bilingual mind.

Before reporting a series of experiments that investigate convergence, Alferink discusses potentially competing types of crosslinguistic influence, such as incomplete acquisition and transfer. Many authors have put great effort into formulating separate definitions for these processes but it is often not clear how to distinguish these processes on the basis of empirical observations. Alferink describes some of the definitional difficulties, and then simply continues to describe the details of her studies. Her pragmatic attitude is justifiable, especially in this domain, because there is a vast amount of potentially interesting patterns out there, and definitional quibbles do not get us any closer to discovering these.

The first study (chapter II) focuses on placement events. In English these events can almost all be described using the verb 'put', but other languages designate different verbs to different kinds of placement events. Dutch, for example, makes an obligatory distinction between 'zetten' ('set') and 'leggen' ('lay') for the placement of vertically and horizontally oriented objects respectively. French, on the other hand, does not have such a distinction, and has a general verb 'mettre', that is used for horizontal as well as vertical placements, alongside other verbs, such as 'poser' and 'placer' (both of which can be used across orientations).

Monolingual speakers of French and Dutch, as well as French/Dutch bilinguals were asked to describe a series of horizontal (e.g., a remote control on a shelf) and vertical (e.g., an alarm clock on a sheet of paper) placement events presented as clips, in a Director-Matcher task (a Director describes the scene to a Matcher). Analysis of the verb types used in Dutch shows that where monolingual Dutch speakers distinguish between horizontal and vertical scenes, bilinguals tend to lose this distinction and use the horizontal verb across event type instead.

The kind of convergence that takes place in this study is reductive rather than cumulative: bilinguals are more likely to lose a semantic distinction, rather than to maintain distinctions from both languages. Sometimes, however, seemingly simple speech strings are accompanied by *gestures* that suggest a more complex semantic representation after all, and therefore it is important not to overlook the manual modality.

The second study (chapter III) therefore takes a multimodal perspective, to see if bilinguals show multimodal patterns of convergence that differ from uni-modal patterns. The stimuli material for the study was a set of 13 short cartoon clips showing voluntary motion, including information about the MANNER (e.g., swimming, running) and the PATH (horizontal or vertical) of the motion. Monolingual speakers of French and Dutch, and French/Dutch bilinguals were asked to describe the clips in a Director-Matcher task.

Generally, Dutch spoken utterances were more likely to include both MANNER and PATH information (e.g., ‘the squirrel climbs up’) than the French, which were more likely to include only one of these two (e.g., ‘the squirrel goes up’ or ‘the squirrel climbs’). Bilinguals, when speaking French, did not differ significantly from the French monolinguals, but when speaking Dutch, they were less likely than Dutch monolinguals to encode both MANNER and PATH. In their co-speech *gesture*, the different groups showed very similar behaviour: they all encoded only one element most of the time, generally only PATH-information (although there are occurrences of only MANNER and of PATH+MANNER).

Because the behaviour found in this experiment does not concern a (semi-)obligatory distinction (like in the previous experiment), Alferink characterises the kind of convergence that takes place here as *redistribution* (rather than reduction). But the trend in this experiment is quite similar to that found in the previous: in the bilinguals’ spoken language, Dutch is found to be more likely to ‘dress down’ to become more similar to French. This reductive pattern is not compensated for in the manual domain: the information encoded in co-speech gesture is similar among the different groups of speakers. This finding may be surprising, as we know that L2 speakers sometimes use gestures to compensate for simplified structure in speech. But the fact that only one semantic element is encoded across the board (even by monolingual Dutch speakers), could suggest that there is something about the MANNERS in the particular events that makes it unlikely for speakers to use gestures for them. Alferink offers an additional analysis of co-expressivity of speech and gesture: do the gestures that are aligned with spoken information express the same information? However, any differences between language groups found in this analysis seem to be driven mainly by the speech results.

In the third experiment (chapter IV), Alferink focuses on the expression of motion events in spoken descriptions on a coarse grained level (just looking at whether MANNER and/or PATH are expressed) and on a finer grained level (looking at the details of the expressive devices). French and Dutch are quite different in the way they express voluntary motion: French is a v-language and typically lexicalises information about PATH in the verb root, such as in the French sentence ‘L’écureuil monte dans l’arbre’ (the squirrel ascends in the tree). Dutch, on the other hand, is an s-language, and generally conveys PATH information in a satellite (‘the squirrel climbs **up** the tree’).

Participants from three language groups (French, Dutch, and bilingual French/Dutch) were asked to describe short cartoon clips (the same ones as in the previous experiment). The coarse grained results, not surprisingly, show the same pattern as those in the previous experiment: bilingual Dutch is less likely to express both manner and path, and is more similar to French, and no convergence seems to take place in bilingual French.

The fine-grained analysis allows Alferink to investigate convergence patterns in more detail. Analysis of the verbs shows that there *is* convergence in both languages: bilingual speakers are more likely than monolinguals to use MANNER verbs in French, and more PATH verbs (and semantically light verbs) in Dutch (going against the v-language pattern in French and the s-language pattern in Dutch). Outside the main verb, on the other hand, bilinguals are more likely to express PATH information than monolingual French speakers, but less likely than monolingual Dutch speakers.

Overall, however, convergence was observed more clearly in bilingual Dutch than in bilingual French. To investigate the possible mechanisms behind this asymmetry, Alferink looks at the role of variation within the languages and her analysis suggests that in cases where a language offers viable alternatives, convergence is more likely to happen. In Dutch, ‘DOWN events’ can be described using either a MANNER verb (typically for an s-language), or a light verb: ‘climb down the tree’ vs. ‘go down the tree’. Both are represented in the monolingual data. In the bilingual data, the latter is simply used more often. In French, there is very little variation among the monolinguals. In other words, there is not sufficient variation to make convergence possible.

With these experiments, Alferink gained valuable knowledge about the mechanisms underlying convergence. Many studies on convergence focus on isolated lexical elements, and it is interesting to see an investigation of structured meaning. This may be somewhat harder to study experimentally and to analyse, but in the encoding of motion, Alferink has found an interesting case study, and her application of fine-grained and coarse-grained analyses is very clear, and quite useful. The picture she sketches in the end, of convergence as a multi-faceted phenomenon, with for instance lexical variation as a relevant factor, is sensible. Moreover, Alferink is realistic about the conclusions that can be drawn from her observations: patterns of convergence are by no means uniform, and many questions remain unanswered. The ‘future directions’ section is long and relatively detailed. And interesting too, because convergence is a complex, but fascinating phenomenon.

Investigating the mechanisms that lead to convergence is important in order to understand the bilingual speaker’s linguistic system, at least that is how Alferink puts it. And she is right, of course. But given that bilingualism is very common in the world (see e.g., Wolff, 2000, and Baker & Jones, 1998), and the results in this thesis point quite clearly to forms of reduction in bilingual language use, I keep wondering about possible further implications for language structure. In literature about language evolution, one has looked at the influence of language learners on the structure of languages. For example, by analysing structural and socio-demographic information about a big body of languages, Lupyan & Dale (2010) found that languages that have a high proportion of adult (L2) learners, tend to have lower morphosyntactic complexity. If we take language seriously as a complex adaptive system (e.g., Beckner et al.,

2009), and given the observations above, looking at bilingualism and its role in the evolution of language structure is a very interesting topic indeed.

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